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Financial Reporting and Inventory Disclosure in the Extractive Industry

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Title:

Abstract:

Companies in the Extractive Industry (E.I) have some particularities and special regulation that provides an interesting study of inventory and reporting in their financial statements. The theme thus chosen here, aims to make a comparison of the various methods of reporting inventories (recognition, measurement, presentation and disclosures) as well as the different accounting regulations in place. Moreover, inventories are a current asset which represents a large per cent of total assets. Another is that it also provides an opportunity for analysis of the different regulations in place for disclosures; the different standards implemented- IAS, US GAAP and/or regional standards.

Keywords:

Extractive industry, Inventories, oil and gas, accounting standards

I. Introduction

In choosing this topic, there were several motivations, primarily however, was because of the limited research that has been done within this field given this particular sector. The extractive industry is enormous and largely significant within the global economy. This Work Project aims to study the several accounting regulations issues facing this industry, and especially relate them with the inventory disclosure procedures followed by these companies. Accounting policies matter to corporations because they shape the distribution of income, wealth and perceptions of risks (Solomons, 1978).The extractive industry has been having issues with accounting regulations since the expansion of economic globalization. The lack of uniformity and acceptable accounting practices in the extractive industries has been recognized over a long period (Luther, 1996). The differing accounting standards have led to conflicts with firms that are multi-national or are going global. The reason it is very significant for this industry is firstly because it accounts for *a large percentage* of the global market share. Also, the International Accounting Standards Board (IASB) has been working on a solution for these issues since 1998.

Thus the main objective of this research is to provide insight into the actual practices being followed by the largest companies within the global extractive industry, their different regulations, namely issues on presentation, recognition, measurement and disclosures about inventories in companies operating in the extractive industry..

The research proceeds as follows: Section 2 presents the key definitions of inventory, Section 3 presents a review of the different accounting regulations. Section 4 provides the Literature Review followed by Section 5 which is the Methodology and Sample description and Section 6 presenting the results. Finally, Section 7 presents the conclusions.

2. What is Inventory?

Inventory is defined as the raw materials, work-in-process goods and completely finished goods that are considered to be the portion of a business's assets that are ready or will be ready for sale. Inventory represents one of the most important assets that most businesses possess, because the turnover of inventory represents one of the primary sources of revenue generation and subsequent earnings for the company's shareholders/owners. (Investopedia, 2011)

It includes raw materials, work in progress, finished goods, and merchandises. Companies disclose information about inventories in their financial statements. This covers the following items: reporting inventories (recognition, measurement, presentation and disclosures).

The following equation expresses how a company's inventory is determined:

Beginning Inventory + Net Purchases - Cost of Goods Sold (COGS) = Ending Inventory

In other words, after taking what the company has in the beginning, and adding what it has purchased, subtracting what has been sold, and the result is what remains.

Inventories are recognized as assets, and measurement includes the entry and exit from the balance sheet. Additionally, disclosures under the notes to the financial statements complete the available information about inventories.

The accounting method that a company decides to use to determine the costs of inventory can directly impact the balance sheet, income statement and statement of cash flow. IAS2 requires that inventory be stated at lower cost and not at net realizable value [IAS 2.9].

Some of the commonly used methods of accounting for inventories are stated as: •First-In, First-Out (FIFO), Last-In, First-Out (LIFO), and Weighted Average Cost[1] (Alexander, Britton, & Jorrisen, 2007)

FIFO assumes that the assets that are remaining in inventory are matched to the assets that are most recently purchased or produced. Because of this assumption, there are a number of tax minimization strategies associated with using the FIFO asset-management and valuation method. On the contrary, LIFO assumes that an entity sells, uses or disposes of its newest inventory first. If an asset is sold for less than it is acquired for, then the difference is considered a capital loss. If an asset is sold for more than it is acquired for, the difference is considered a capital gain. Using the LIFO method to

[1] Besides the three methods referred, there are others, such as “Base Inventory” and “Unit Cost” which are not reviewed in this research

evaluate and manage inventory can be tax advantageous, but it may also increase tax liability. Finally, under the average cost method, it is assumed that the cost of inventory is based on the average cost of the goods available for sale during the period.

The average cost is computed by dividing the total cost of goods available for sale by the total units available for sale. This gives a weighted-average unit cost that is applied to the units in the ending inventory. (Investopedia, 2011)

3. Review of Different Accounting Regulation

This section reviews the main international regulation about inventories. This comprises International Accounting Standards 2 (IAS 2) and International Financial Reporting Standards 6 (IFRS 6), the latter being an accounting standard specific for financial reporting in the EI and US Generally Accepted Accounting Principles (US GAAP)

- **IAS 2 for Inventories**

Inventories include assets held for sale in the ordinary course of business (finished goods), assets in the production process for sale in the ordinary course of business (work in process), and materials and supplies that are consumed in production (raw materials). [IAS 2.6]

IAS 2 defines inventories and specifies requirements for the recognition of inventory as an asset and an expense, the measurement of inventories, and disclosures about inventories

Recognition of entry into the balance sheet: Inventories are measured at cost. Some inventories are excluded from this requirement: agricultural products (after harvest) and

mineral products that are measured at net realisable value in accordance with industry practice; and the inventories of those commodity broker-traders who measure their inventories at fair value less costs to sell. In all such cases changes in inventory value must be recognised in profit or loss as they occur.

The cost of inventory includes costs of purchase and production or conversion. Cost does not include abnormal wastage, administrative overheads that are not production costs, and selling costs [IAS 2.16 and 2.18]

While in the balance sheet, year after year: Inventories are reduced to Net Realisable Value (NRV) when this is lower than cost. NRV is estimated selling price less estimated costs of completion and of making the sale. A write-down (reduction in carrying amount) to NRV may be required when inventory is damaged, or becomes wholly or partially obsolete, or when selling price reduces, or the costs to complete the product and to get it ready for sale increase. The write-down is made item by item, or by groups of items when those items have similar uses, are produced or marketed in the same area and cannot be easily evaluated separately from other items in that product line recognition of exit from the balance sheet:

Cost is assigned to each item of inventory that is unique or segregated for specific projects, by using an allowable cost formula, such as first-in, first-out (FIFO) or weighted average cost. (IAS Plus, 2011)

- **IFRS 6**

IFRS 6, ‘Exploration for and evaluation of mineral resources’, addresses the financial reporting for the exploration for and evaluation of mineral resources; it does not address other aspects of accounting by entities engaged in the exploration for and evaluation of mineral reserves (such as activities before an entity has acquired the legal right to explore or after the technical feasibility and commercial viability to extract resources have been demonstrated) i.e. IFRS 6 does not apply after the technical feasibility and commercial viability of the mineral resources are confirmable. (IASB, 2010)

The activities outside the scope of IFRS 6 are accounted for according to the applicable standards.

The accounting policy adopted for the recognition of exploration and evaluation assets should result in information that is relevant and reliable. However, as a concession, certain further rules of IAS 8, ‘Accounting policies, changes in accounting estimates and errors’, need not be applied. This permits companies in this sector to continue, for the time being, to apply policies that were followed under national GAAP that would not comply with the requirements of IFRS. The counting policy may be changed only if the change makes the financial statements more relevant and no less reliable, or more reliable and no less relevant – in other words, if the new accounting policy takes it closer to the Framework requirements. Exploration and evaluation assets are initially measured at cost. Exploration and evaluation assets are classified as tangible or intangible assets, according to the nature of the assets acquired. Management should apply that classification consistently. (IAS Plus, 2011)

After recognition, an entity should apply either the cost model or the revaluation model to the exploration and evaluation assets, based on IAS 16, ‘Property, plant and equipment’, or IAS 38, ‘Intangible assets’, according to nature of the assets. As soon as technical feasibility and commercial viability are determined, the assets are no longer classified as exploration and evaluation assets.

The exploration and evaluation assets are tested for impairment when facts and circumstances suggest that the carrying amounts may not be recovered. The assets are also tested for impairment before reclassification out of exploration and evaluation. The impairment is measured, presented and disclosed according to IAS 36, ‘Impairment of assets’, except that exploration and evaluation assets are allocated to cash-generating units or groups of cash-generating units no larger than a segment.

Management should disclose the accounting policy adopted as well as the amount of assets, liabilities, income and expense and investing cash flows arising from the exploration and evaluation of mineral resources.

Under IFRS, Inventories measured at the lower of cost and net realizable value. Net realizable value does not reflect changes in the market price of the inventory after the balance sheet date if this reflects events and conditions that arose after the balance sheet date. (PriceWaterhouseCoopers, 2008)

- **U.S. Generally Accepted Accounting Principles (US GAAP)**

Companies involved in the exploration and development of wasting (non-regenerative) resources have the option of choosing between two accounting approaches: the "successful efforts" (SE) method and the "full cost" (FC) method. These differ in the treatment of specific operating expenses relating to the exploration of new natural resource reserves. The accounting method that a company chooses affects how its net income and cash flow numbers are reported. Therefore, when analyzing companies involved in the exploration and development of oil and natural gas, the accounting method used by such companies is an important consideration.

In 1998, the extractive industries project was added to the formal agenda of the International Accounting Standards Committee(IASC), which later became the IASB. (Cortese & Irvine, 2010) and led to the publication of the Extractive Issues paper in 2000. Accounting for pre-production activities was one of the issues the respondents had to address (in terms of full cost, successful efforts or derivatives of the successful efforts method)

The IASC research project resulted in the publication of the Issues paper from November 2000 stating the following primary issues:

Among the critical issues found were

• which costs of finding, acquiring, and developing mineral reserves should be capitalized

- how to depreciate (amortize) capitalized costs, the extent to which quantities and values of mineral reserves, rather than costs, should affect recognition, measurement, and disclosure, and
- how to define, classify, and measure mineral reserves. (Deloitte Touche Tohmatsu, 2001)

Under US GAAP, inventories are measured at the lower of cost and market value. When market value is lower than cost at the balance sheet date, a recovery of market value after the balance sheet date but before the issuance of the financial statements is recognized as a type I (adjusting) post balance sheet event. (PriceWaterhouseCoopers, 2008)

- Table 1 summarizes the distinguishing characteristics of the IFRS and US GAAP based on different categories for inventory

CATEGORY	IFRS/IAS 2	US GAAP
Scope	Includes provisions for work in progress	Excludes work in progress
Valuation	Lower of cost or NRV	Lower of cost or market subject to upper/lower limit of NRV
Determination of cost	LIFO not allowed	LIFO allowed
Measurement	Permitted only for producers' inventories of agricultural and forest products and mineral ores and for broker-dealers' inventories of commodities.	Similar, but not restricted to producers and broker-traders.
Write down	Reversal of write down if subsequent criteria are met	Write down not allowed

Table 1

4. Literature Review:

The full cost method is one of the two most popular methods in accounting for exploration and evaluation expenditure, the other method is the successful efforts method (Epstein & Jermakowicz, 2009). However, there are serious problems associated with this method (Cartwright, 1991) In periods of large write offs this method significantly distorts the net income while in periods in which more than one viable ore deposit is found the problem arises of allocating these capitalized exploration expenses correctly (Cartwright, 1991).In relation to the two accounting methods being employed in EI, firms using Full Cost accounting method experienced larger negative stock-price effect than those using Successful Efforts method (Lev, 1979). These findings were re-affirmed four years later with the help of alternative statistical tests and specification checks (Jain, 1983) The successful efforts method expenses any costs that are not directly related to an ore reserve, for example the costs of drilling activity that does not find any reserves and all costs incurred before discovery (Sturdy, 2011). A major problem with this method is that, until an ore reserve has been defined, the entity will not know which costs to capitalize (Cartwright, 1991). One of the main benefits of this method is that the users of financial statements are able to assess management in terms of its unsuccessful exploration activities (Pretorius, Venter, & von Well, 2009) In view of the lack of accounting for the failed projects that were explored before a successful project was discovered this method actually conceals the actual cost of the asset(s) (Cartwright, 1991)

In support the argument of the vagueness of accounting regulations in EI, it was also found that accounting standardization and regulation in EI are likely to be more related to politics than accounting and may not altogether be rational or conclusive (Luther, 1996). This is with reference to the Extractive Industry Issues Paper that was published by the IASC in 2000, as a result of the research project carried out since 1998. (Cortese, Irvine, & Kaidonis, 2008). The international prominence, economic influence, and divergent practices of the extractive industries were listed by the IASC as factors contributing to the importance of the project, which sought to redress the disparity in accounting measurement and disclosure practices prevalent in the sector (IASC 2000). This outcome of this research led to the publication of the IFRS 6 in 2004, and which was meant to standardize accounting policy across the industry. IFRS 6 (IASB, 2010a), *Exploration for and evaluation of mineral resources*, was developed as an interim standard to allow entities adopting IFRSs to continue to apply their existing accounting policies for these expenditure (IFRS Foundation, 2010). However, it failed to do so, when it eventually came into effect on January 1, 2006 and thus, maintained the divergent practices in accounting practices. The main objective of IFRS 6, (IASB, 2010)is to indicate the financial reporting for the exploration for and evaluation of mineral resources.

As a result of IFRS 6 a junior exploration company can at one extreme decide to recognize all exploration and evaluation expenditure as an asset even if the outcome is highly uncertain. At the other extreme, a junior exploration company can decide to expense all exploration and evaluation expenditure (PriceWaterhouseCoopers, 2008)

5. Methodology and Sample

This section provides the description of the research questions, the data sample and the methodology used.

The primary intention of this research is to provide a clearer insight into the vague reality of accounting regulation and actual practices being followed by EI companies.

5.1. Research Questions

The research questions have been formulated in order to give a better understanding into the regulatory issues facing the industry. They are as follows:

RQ1. What are the regulations in place in the market? Which of these regulations are being followed by the companies in the sample? [IFRS/IAS ; FAS ; Regional GAAP]

RQ2.What does management disclose about accounting regulation followed for inventories and where?

RQ3. Do the companies disclose what accounting method (for exploration and evaluation) is being followed and where do they disclose this?

RQ4. Is any of this information is voluntary disclosure?

RQ5. Are the companies not disclosing obligatory items?

RQ6. Are these companies actually following accounting standards/regulations?

In order to maintain the consistency of the research, it was decided to use one single database from the Revenue Watch Institute[2] (also in use by the SNAP program of the United Nations Development Program). Part of the criteria on which the companies were selected based on the percentage they contributed to the various exchanges they were being traded on. As would be obvious, companies with higher percentages were selected.

Therefore, to answer these questions, a sample of *61* companies was collected and their most recent financial reporting practices were analyzed for the period being 2009/2010 or 2010/2011 where applicable. The companies were selected based on geographical diversity, while simultaneously trying to maintain the proportion of the constitutions of major global exchanges in the world extractive sector market capitalization[3] as represented by the graph in **Figure 1**.

[2] SNAP is the Solutions Network of Asia Pacific- an initiative of the UNDP development centres in the Asia Pacific

[3] Obtained from the Revenue Watch Institute: www.revenuewatch.org (September, 2011)

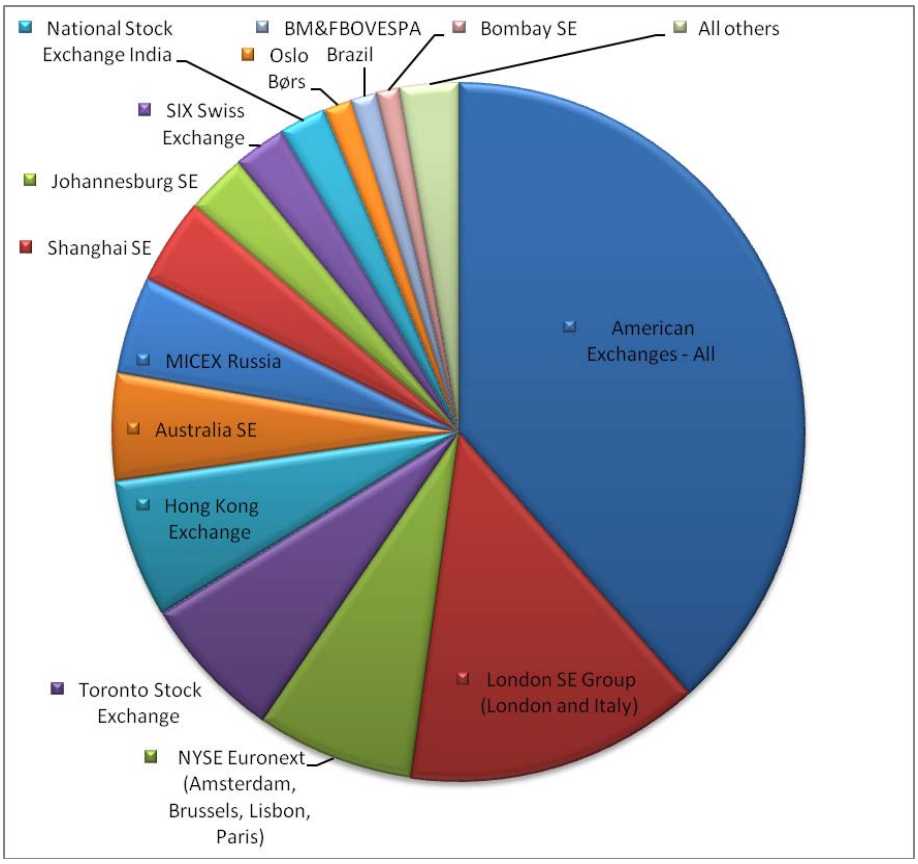

Figure 1 Global Distribution of Extractive Industry by market capitalization

The original sample size would have corresponded to 110 companies, however, this number was halved keeping in mind the restricted time and resources available to conduct this study. The reports of these companies were directly obtained from their respective websites. **Table 2** in the appendix provides the name of companies in the sample, and along with all the findings. With procuring the financial statements of the companies from the aforementioned period, the idea was to arrive to a conclusion based on the most current data available, so that this study would be relevant in terms of the current practices.

To proceed, the statements of financial position of the companies were first studied. The notes were then studied with respect to information disclosed about inventories and the method of accounting for exploration and evaluation being used. The notes were also researched to find evidence of any additional disclosures with respect to inventories, namely the items analyzed covered the following variables- recognition, determination of cost, valuation etc

The balance sheets (statements of financial position) of the respective companies were analyzed based on the amount of inventory reported in terms of their total assets. Therefore, it was possible to compare the contribution of inventory to the total assets for all the companies in the sample, and conclude about the importance of the item in the companies.

The comparison factor can be given as:

$$Inventory\ as\ percentage\ of\ Total\ Assets = \frac{(Inventory + Non\ Current\ Inventory)}{Total\ Assets} \times 100$$

Table 2 in the appendix provides the inventory constitution of companies in the sample and method of inventory accounting employed

6. Results

This section presents brief explanations and answers to the research questions from Section 5

The regulations in place in the market. Regulations being followed by the companies in the sample. [IFRS/IAS ; FAS ; Regional GAAP] (RQ 1)

It was found that a majority of the countries sampled have their respective GAAP, however with some of the principles of IFRS have been integrated into regional GAAP. For example, South Africa, where the SA GAAP have converged to a point of almost total similarity with IFRS except for a when a delay in the approval process arises in practice, but the effective dates remain the same.[4].If countries expect the EU to have a dominant role in IASB affairs (Brackney & Witmer, 2005), they are likely to have to cede some authority over standard setting to EU interests.[5] Ceding authority over local standards is, in turn, likely to be less palatable to more powerful countries, which leads to the prediction that more powerful countries are less likely to embrace IFRS (Ramanna & Sletten, 2009). **Table 3** describes the findings for the sample.

[4] PWC, March 2011, IFRS Adoption by Country

[5]Brackney, K.S., and P.R. Witmer. 2005. The European Union's role in international standards setting. CPA Journal, November.
http://www.nysscpa.org/cpajournal/2005/1105/infocus/p20.htm
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Table 3 Accounting Standards in use based on Exchange

Country/Foreign Exchange	Accounting Standards	Number of companies
American Exchanges - All	US GAAP	19
London SE Group (London and Italy)	IFRS as adopted by EU	7
NYSE Euronext (Amsterdam, Brussels, Lisbon, Paris)	IFRS as adopted by EU	4
Toronto Stock Exchange	Canadian GAAP	4
Hong Kong Exchange	HKAS	4
Australia SE	AIFRS	3
MICEX Russia	RAP	3
Shanghai SE	CAS	2
Johannesburg SE	SA GAAP	2
SIX Swiss Exchange	ARR/FER	2
National Stock Exchange India	Indian Accounting Standards	2
Oslo Børs	Norwegian Accounting Standards	1
BM&FBOVESPA Brazil	Brazilian GAAP	1
Bombay SE	Indian Accounting Standards	1
Korean Exchange	Korean GAAP	1
Tokyo Exchange Group	Japanese GAAP	1

Table 3

Management disclosure about accounting regulation followed for inventories and where(RQ 2)

Regarding the accounting regulations followed for inventories, all the companies in the sample, except for one, did in fact disclose information about accounting practice for inventory, i.e a 98.3 percent affirmative. This information was included in every company- the definition of inventory, the method of determination of cost, and determination of Net Realizable Value. Devon Energy, an American listed company, did not disclose information about inventory in the notes. The most common method of inventory measurement was Lower of Weighted Average or NRV (Net Realizable Value).

Twenty of the companies sampled used this method corresponding to a percentage of approximately 33 percent. The least used method was the Lower of Historical Cost or NRV, and it was used by one company.

With regards to the weights of inventory with respect to total assets, it was found that the average weight of the sample was 7.2 percent, while the highest of 27.53 percent belonged to Indian company Hindustan Petroleum. The lowest of 0.19 percent belonged to Woodside Petroleum, an Australian company.

The results are described in **Table 2** in the appendix.

Accounting method for E & E and where is it disclosed (RQ3)

From the sample, it was found that a majority of the companies in the Oil and Gas sector disclosed what accounting method was being followed for Exploration and Evaluation, i.e. whether Successful Efforts or Full Cost. Seven Oil and Gas companies did not, however, disclose any information whatsoever regarding the method being employed. In total, the number of companies that did not disclose was 21, which is a largely significant 34.4 percent.

Twelve companies used the Full Cost method (approximately 20 percent) and 29 companies (approximately 48 percent) used the Successful Efforts method. Therefore, these results confirm the findings by KPMG that it is not common that mining companies disclose an accounting policy for pre-exploration expenditure (KPMG, 2009)

What is interesting to note is that both companies that used SE and those that used Full Cost had similar constitutions of inventory on total assets- 6.27 percent and 6.38 percent.

Voluntary disclosures (RQ4)

It was found that few companies, if any, disclosed voluntary information regarding accounting policy and inventories, and if it were the case, this information was found in the notes. An example can be the Canadian companies that report both following Canadian GAAP and US GAAP, in order to cater to their shareholders from the United States. This disclosure is purely voluntary. Thus the findings of Sturdy, 2011 can be validated in that IFRS 6 does not remedy the lack of uniformity in the accounting practices of exploration companies and neither does it contribute to one of the basic qualitative characteristics of the Framework, namely, comparability. (Sturdy, 2011)

Obligatory items not being disclosed (RQ5)

The companies that did not disclose information regarding the method being used for Exploration and Evaluation, were based in various countries, following various accounting standards. However, it must be noted that this disclosure is mandatory for Oil and Gas companies following US. GAAP. National Oilwell Varco was one company following US GAAP that did not disclose these obligatory items.

Are these companies actually following accounting standards/regulations?(RQ6)

It was found that many of the companies in the sample were in the process of transitioning from one accounting standard to IFRS or a system that closely resembled IFRS. Therefore, this question cannot be answered objectively. What can be concluded however the following is: The exemption of paragraphs 11 and 12 of IAS 8 in IFRS 6 allows an entity to develop an accounting policy, which may not fully comply with the Framework. The range of accounting polices highlights the significant flexibility allowed by IFRS 6 and therefore creates various accounting practices used by exploration companies in the accounting for exploration and evaluation expenditure.

7. Conclusion

In performing this research, there were several limitations that were encountered. These provide the opportunity for future researchers within the field to improve and/or enhance the scope of the study.It was difficult to assess the overall global geographical distribution of the EI. The Revenue Watch Institute was the single source of this

information. The scope of the research would have been better improved if there were other comparable sources. The companies that represented less than 1 percent of the global extractive sector market capitalization had a significant part to play in the sample. These were represented by 1 company, i.e. the fractional percentages had to be rounded to the nearest one. This may not necessarily provide an accurate picture of the global EI as a whole and thus poses a limitation to the study. While in theory the sum of the total percentages should be one hundred, in this case, because of rounding up the percentages to the nearest whole number, the sum of the percentages was instead 110. As it was not deemed feasible to study the reports of 110 companies, this was halved to get a more practical number, which was 55, but in rounding the fractions to the nearest 1, this number was increased to 61. Hence, this also provides opportunity for further research in terms of developing the study for a more accurate global population that corresponds with the source.

Also, as many of the countries are in transition in adopting IFRS or similar standards, it would be interesting to repeat the study a few years later to see if the standards are being followed.

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Appendix

Table 2 Companies in the Sample Analyzed with Results

Company	Year	Inventory Constitution of Total Assets	Inventory Method	Exploration and Evaluation Accounting Method	Exchange
Petrobras	2009	6.20	Average Cost	SE	BM&FBOVESPA Brazil
Lukoil	2010	7.42	Average Cost	SE	MICEX Russia
Vale S.A	2010	3.33	Average Cost	N/a	American Exchanges - All
Halliburton	2010	10.60	Average Cost	SE	American Exchanges - All
Royal Dutch Shell	2009	20.31	Cost/NRV	SE	NYSE Euronext
Husky Energy	2010	6.64	FIFO	Full Cost	Toronto Stock Exchange
Nexen	2010	2.51	FIFO	SE	American Exchanges - All
Oil Search Ltd.	2010	1.40	FIFO	SE	Australia SE
British Petroleum	2009	9.58	FIFO	SE	London SE Group (London and Italy)
BHP Billiton	2010	6.39	L. Cost / NRV	Full Cost	American Exchanges - All
GoldCorp	2010	1.38	L. Cost / NRV	Full Cost	American Exchanges - All
Schlumberger	2010	7.35	L. Cost / NRV	Full Cost	American Exchanges - All
National Oilwell Varco	2010	16.21	L. Cost / NRV	N/a	American Exchanges - All
Teck Resources Ltd	2010	4.72	L. Cost / NRV	N/a	American Exchanges - All
China Oilfield Services Ltd	2010	22.70	L. Cost / NRV	N/a	Hong Kong Exchange
AngloGold	2010	1.14	L. Cost / NRV	N/a	Johannesburg SE
Antofagasta	2010	3.32	L. Cost / NRV	N/a	London SE Group (London and Italy)
Xstrata	2010	6.90	L. Cost / NRV	N/a	London SE Group (London and Italy)
Galp	2010	17.14	L. Cost / NRV	N/a	NYSE Euronext
Imerys	2010	12.31	L. Cost / NRV	N/a	NYSE Euronext
Angang	2010	12.50	L. Cost / NRV	N/a	Shenzhen SE
Canadian Oil S	2010	1.84	L. Cost / NRV	N/a	Toronto Stock Exchange
Talisman	2010	0.59	L. Cost / NRV	SE	American Exchanges - All
Santos	2009	2.40	L. Cost / NRV	SE	Australia SE
Kazakhmys	2010	5.32	L. Cost / NRV	SE	Hong Kong Exchange
P/F Atlantic Petroleum	2010	1.71	L. Cost / NRV	SE	NASDAQ OMX Nordic Exchanges
Oil India Ltd	2011	2.93	L. Cost / NRV	SE	National Stock Exchange India
ONGC Ltd	2011	7.30	L. Cost / NRV	SE	National Stock Exchange India
Glencore International AG	2010	21.80	L. Cost/ NRV	Full Cost	Hong Kong Exchange
Canadian Natural Resources	2010	1.43	L. FIFO/NRV	Full Cost	American Exchanges - All
Cenovus	2010	3.98	L. FIFO/NRV	Full Cost	American Exchanges - All
SKI	2010	18.69	L. FIFO/NRV	Full Cost	Korea Exchange
AngloAmerican	2010	5.41	L. FIFO/NRV	N/a	SIX Swiss Exchange
Petroplus	2010	25.23	L. FIFO/NRV	n/a	SIX Swiss Exchange
Suncor	2010	4.48	L. FIFO/NRV	SE	American Exchanges - All
HP	2010	27.53	L. FIFO/NRV	SE	Bombay SE
Tullow Oil	2010	1.65	L. FIFO/NRV	SE	London SE Group (London and Italy)
CSEC	2010	4.59	L. FIFO/NRV	SE	Shanghai SE
Gerdau	2010	15.85	L. Hist Cost/ NRV	N/a	American Exchanges - All
Fresnillo	2010	2.69	L. Weighted Avg Cost/NRV	N/a	London SE Group (London and Italy)
Severstal	2010	12.25	L. Weighted Avg Cost/NRV	N/a	MICEX Russia
Lundin Petroleum	2010	0.82	L. Weighted avg/ NRV	Full Cost	Toronto Stock Exchange
Impala Platinum Holdings	2011	8.09	L. Weighted Avg/ NRV	N/a	Johannesburg SE
Technip	2010	2.17	L. Weighted Avg/NRV	N/a	NYSE Euronext
Repsol	2009	8.63	L. Weighted Avg/NRV	SE	BME Spanish Exchanges
Woodside Petroleum	2010	0.19	L. Weighted Avg/NRV	SE	Australia SE
Sinopec	2009	16.34	L. Weighted Avg/NRV	SE	Hong Kong Exchange
Petrochina	2010	7.84	L. Weighted Avg/NRV	SE	Shanghai SE
Chevron	2010	2.97	LIFO	SE	American Exchanges - All
ConocoPhillips	2010	3.32	LIFO	SE	American Exchanges - All
Imperial Oil	2010	2.56	LIFO	SE	Toronto Stock Exchange
Statoil	2010	3.67	LIFO/FIFO	SE	Oslo Børs
Devon Energy	2010	0.36	N/a	Full Cost	American Exchanges - All
Barrick Gold	2010	5.56	NRV	SE	American Exchanges - All
Apache	2010	1.30	Weighted Average	Full Cost	American Exchanges - All
Gazprom	2010	3.57	Weighted Average	N/a	Deutsche Börse (Frankfurt)
Rio Tinto	2010	4.56	Weighted Average	N/a	London SE Group (London and Italy)
Inpex	2010	0.61	Weighted Average	N/a	Tokyo SE Group
Ecopetrol	2010	3.19	Weighted Average	SE	American Exchanges - All
BG Group	2009	1.81	Weighted Average	SE	London SE Group (London and Italy)
United Co. Rusal	2010	9.16	Weighted Average	SE	MICEX Russia

Table 4 World Mineral Production, 2009

MINERAL FUELS	2009	Leading Producers, 2009
Coal	7,680	China, United States, India
Dry natural gas	106	United States, Russia, Canada
Natural gas plant liquids	2,957	United States, Saudi Arabia, Canada
Petroleum, crude	26,374	Russia, Saudi Arabia, United States
NONMETALLIC MINERALS		
Cement, hydraulic	3,010	China, India, United States
Diamond, gem and industrial	129	Russia, Botswana, Congo (Kinshasa)
Nitrogen in ammonia	130	China, India, Russia
Phosphate rock, marketable	166	China, United States, Morocco and Western Sahara
Potash, marketable (K_2O equivalent)	21	Canada, Russia, Belarus
Salt	276	China, United States, Germany
Sulfur, elemental basis	68	United States, China, Russia
METALS		
Aluminum	37	China, Russia, Canada
Bauxite, gross weight	199	Australia, China, Brazil
Chromite, gross weight	19,300	South Africa, India, Kazakhstan
Copper, metal content	15,900	Chile, Peru, United States
Gold, metal content	2,450	China, United States, Australia
Iron ore, gross weight	2,240	China, Australia, Brazil
Lead, metal content	3,860	China, Australia, United States
Manganese ore, metal content	10,800	China, Australia, South Africa
Nickel, metal content	1,390	Russia, Indonesia, Australia
Steel, crude	1,240	China, Japan, United States
Tin, metal content	260	China, Indonesia, Peru
Titanium, metal sponge	136	China, Russia, Japan
Zinc, metal content	11,200	China, Peru, Australia
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